



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,475	04/21/2004	Yoshihisa Dotta	1035-506	7094
<div>23117      7590      01/24/2007</div> <div>NIXON &amp; VANDERHYE, PC</div> <div>901 NORTH GLEBE ROAD, 11TH FLOOR</div> <div>ARLINGTON, VA 22203</div>				
			<div>EXAMINER</div> <div>NADAV, ORI</div>	
			<div>ART UNIT</div> <div>2811</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>01/24/2007</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/828,475

Applicant(s)

DOTTA ET AL.

Examiner

Ori Nadav

Art Unit

2811

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 26 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See attachment.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_

  
ORI NADAV  
PRIMARY EXAMINER

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant argues that element 32 cannot be a pad electrode.

The examiner agrees that element 32 cannot be a pad electrode. This is a typographical error, as the pad electrode is identified as element 21.

Applicant argues that element 21 cannot be a pad electrode, because the alleged penetration electrode 51 is not electrically connected to element 21.

Hayakawa teaches a device comprising transistors 52 having source/drain electrodes 51 (figure 13B), and a resistor 20 having a pad electrode 21 (figure 12). Since Hayakawa teaches one device, resistor 20 (and thus pad electrode 21) must be electrically connected to the source/drain electrodes 51 in order to incorporate the effects of the resistor to the device. Note that all the electrical elements/components of one device are electrically connected to each other.

Applicant argues that Hayakawa, at best, teaches a plurality of electrodes, and not a pad electrode having an aperture section formed there-through, as required by the claim.

The phrase "a pad electrode having an aperture section" means that in the region where the pad electrode is formed, there is a section wherein the pad electrode is not present. That is, the area where the pad electrode is not present provides an "opening" in the layer of the pad electrode.

In this case, the device comprises plurality of inkjet heads 112B, 112C, 112M, 112Y (see figure 17) adjacent to each other, and thus making one device 112. Each of these inkjet heads includes a pad electrode 21. Therefore, viewing device 112 from above, in-between the plurality of sections of pad electrode layer 21, there is a section where the pad electrode is not formed. This section provides an "opening" in the layer of the pad electrode. This "opening" is the claimed aperture section. Therefore, Hayakawa teaches a pad electrode having an aperture section formed there-through, as claimed.

Applicant argues that element 51 (the alleged penetration electrode in Hayakawa) does not pass through any hole in a semiconductor substrate.

Element 51 located in the left side of figure 13B penetrates the substrate. Therefore, element 51 passes through a hole in a semiconductor substrate.

The broad recitation of the claim does not require element 51 to pass through the entire thickness of the semiconductor substrate.

Applicant argues that penetration electrode 51 in Hayakawa does not pass through an aperture section in the alleged pad electrode 21, because element 51 is below layer 18, while the alleged pad electrode 21 is above layer 19.

The broad recitation of the claim does not require the penetration electrode to pass through the entire length of the aperture section. Therefore, element 51 can be located below layer 18, while pad electrode 21 can be located above layer 19.

Art Unit: 2811

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ori Nadav whose telephone number is 571-272-1660. The examiner can normally be reached between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



O.N.  
1/19/07

ORI NADAV  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2800